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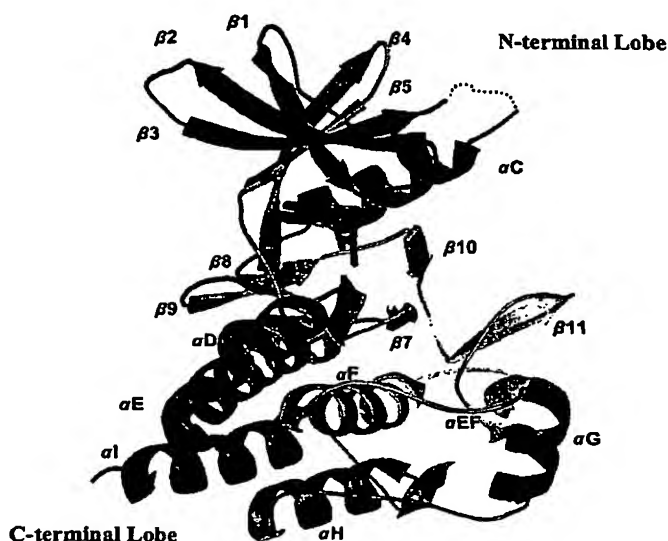
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[Continued on next page]

(54) Title: **SPLEEN TYROSINE KINASE CATALYTIC DOMAIN:CRYSTAL STRUCTURE AND BINDING POCKETS THEREOF**



(57) Abstract: The present invention provides crystalline molecules and molecular complexes that comprise binding pockets of Sykcat and its homologues. The invention also provides crystals comprising the catalytic domain of Syk protein. The invention further provides a computer comprising a data storage medium encoded with the structure coordinates of Sykcat binding pockets and methods for using a computer to evaluate the ability of a chemical entity or compounds to bind to a crystalline molecule or molecular complex of the invention. This invention also provides methods of using the structure coordinates to solve the structure of homologous proteins or protein complexes. The invention further provides methods of using the structure coordinates to screen for, design and optimize chemical entities or compounds, including inhibitory compounds, that bind to the catalytic domain of Syk or homologues thereof.